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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/555,442	11/03/2005	Hitoshi Isoda	Q90893	4358

23373 7590 11/17/2006

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WASHINGTON, DC 20037

EXAMINER

NGUYEN, TRAN N

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 11/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/555,442

Applicant(s)

ISODA ET AL.

Examiner

Tran N. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 20 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3 and 5-7 is/are allowed.
- 6) ☒ Claim(s) 8-10 and 14 is/are rejected.
- 7) ☒ Claim(s) 11-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Withdrawn Double Patenting Rejection

The applicant has filed a Terminal Disclaimer, on 10/20/06; therefore, the non-statutory double patenting rejection against claims 1-7 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent 6930432 (hereafter, USP '432) in view of Umeda et al (US 6,097,130) is hereby withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hayashi et al (US 5,536,987)** in view of **Umeda et al (US 6,097,130)**.

Hayashi discloses a dynamoelectric rotor has a Lundell rotor core having:
a cylindrical boss portion; yoke portions respectively disposed so as to extend radially outward from two axial end edge portions of said boss portion; and a plurality of claw-shaped

magnetic poles disposed so as to extend axially from outer peripheral portions of said yoke portions so as to intermesh with each other alternately; a field winding installed on said boss portion; and a plurality of linking structures that are linked circumferentially (fig 7), wherein the linking structure made of a nonmagnetic material for linking a tip end portion and a root end portion of at least one adjacent pair of said claw-shaped magnetic poles, wherein: a region of said adjacent claw-shaped magnetic poles extending from the tip end portion to the root end portion is linked by said linking structure, and a plurality of said pairs of adjacent claw-shaped magnetic poles are linked by a plurality of said linking structures and said linking structures are linked circumferentially, and wherein a magnet for reducing leakage of magnetic flux between said adjacent claw-shaped magnetic poles is held by said linking structure.

Hayashi substantially discloses the claimed invention, except the limitations of *said field winding is wound onto said boss portion so as to have a larger diameter than a root inside diameter of said claw-shaped magnetic poles and is placed in contact with an inner peripheral surface of at least one of said claw-shaped magnetic poles with an insulating member interposed.*

Umeda, however, teaches a rotor with field winding (8) is wound onto said boss portion so as to have a larger diameter than a root inside diameter of said claw-shaped magnetic poles and is placed in contact with an inner peripheral surface of at least one of said claw-shaped magnetic poles with an insulating member (81) interposed (fig 1, col. 2 lines 50+) for the purpose of increasing in the usable space optimally distributed to an increase in the cross-sectional area of the magnetic path and an increase in the area of the field coil; therefore, the alternator power output can be remarkably improved while keeping the compact, highly efficient, and high-power alternator.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the rotor by configuring the field winding is wound onto said boss portion so as

to have a larger diameter than a root inside diameter of said claw-shaped magnetic poles and is placed in contact with an inner peripheral surface of at least one of said claw-shaped magnetic poles with an insulating member interposed, as taught by Umeda. Doing so would increase in the usable space in the area of the field coil; therefore, the alternator power output can be remarkably improved while keeping the compact, highly efficient, and high-power alternator.

Allowable Subject Matter

Claims 1-3, 5-7 are allowed.

Claims 11-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

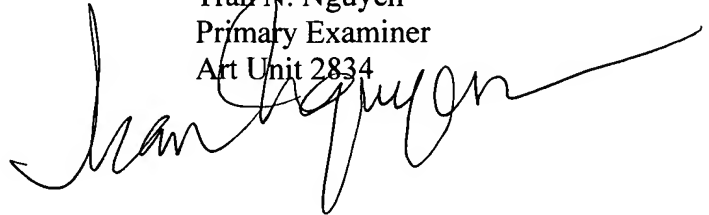
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran N. Nguyen whose telephone number is (571) 272-2030.

The examiner can normally be reached on M-F 7:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571)-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tran N. Nguyen
Primary Examiner
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A handwritten signature in black ink, appearing to read 'Tran N. Nguyen', is written over the printed name and title.